



## Year 11 Maths Learning Journey

Autumn Term 5

Algebra: Changing the subject

Core knowledge	Reference
<b><u>Solve linear equations (R)</u></b> “How do you know that an equation is linear?”	<a href="#">Worksheet</a>
<b><u>Solve inequalities (R)</u></b> “What is the difference between an equation and an inequality?” “What mistakes can be made when substituting?”	<a href="#">Worksheet</a>
<b><u>Form and solve equations and inequalities in the context of shape</u></b> “How can we check that our solution is correct?” “Why doesn’t the graph $1/x$ meet the axis?”	<a href="#">Worksheet</a>
<b><u>Change the subject of a simple formula</u></b> “Why are inverse operations important when rearranging a formula?” “What features of a graph help us identify it’s equation?”	<a href="#">Worksheet</a>
<b><u>Change the subject of a known formula</u></b> “How do you recognise what the subject of a formula is?” “How do we identify the y intercept from a graph?”	<a href="#">Worksheet</a>
<b><u>Change the subject of a complex formula</u></b> “When multiplying or dividing why is it important to do this to every term?” “What does tend towards mean?”	<a href="#">Worksheet</a>
<b><u>Change the subject where the subject appears more than once (H)</u></b> “What is the first step we need to take?” “How is Pythagoras theorem related to circle equations?”	<a href="#">Worksheet</a>
<b><u>Solve equations by iteration (H)</u></b> “How can we check that our last iteration is a good estimate for the solution of the equation?” (H) – ‘How do you find the gradient of a tangent to a curve?’	<a href="#">Worksheet</a>

### Learning Checkpoints

LC Title	Completed	Dirt
Changing the subject		

**Key Vocabulary:**

**Converge:** Approaching a limit more and more closely as a variable of the function increases or decreases or as the number of terms of the series increases.

**Equation:** A mathematical statement that shows that two mathematical expressions are equal.

**Form:** Use the algebraic expressions and information about the situation to form an equation.

**Formula:** A formula is a fact, rule, or principle that is expressed in terms of mathematical symbols.

**Inequality:** An inequality compares two values, showing if one is less than, greater than, or simply not equal to another value.

**Inverse:** Inverse refers to the opposite of another operation.

**Iterate:** The repeated application of a function or process in which the output of each step is used as the input for the next iteration.

**Rearrange:** Changing the form of the equation to display it in a different way.

**Subject:** The subject of an equation is the variable you are solving for.